**Oral Health and Pregnancy** 

"Recent studies point to associations between oral infections... and preterm, low-weight births."



Oral Health in Massachusetts: A Fact Sheet

## What is the public health issue?

Oral health is integral to general health.<sup>2</sup> There is now evidence suggesting that oral health, particularly gum disease, may have an impact on the occurrence of preterm births, resulting in low birth weight babies. Pregnant women with periodontal (gum) disease may be seven times more likely to have a baby that's born too early and too small.<sup>3</sup> The exact connection between poor oral health and preterm birth is unknown. It is thought that periodontal disease may lead to premature birth by the bacteria in the mouth spreading to the placenta or amniotic fluid, and also that systemic inflammation caused by periodontitis may lead to preterm labor and membrane rupture.<sup>4</sup> The likely problem is a chemical found in oral bacteria called prostaglandin, which can induce labor and which occurs in very high levels in severe cases of periodontal

### In the U.S.6:

- The rate of preterm births is 12.8%
- The low birthweight rate is 8.3%

#### In Massachusetts<sup>6</sup>:

- The preterm rate is 9%, which is 30% lower than the national rate
- The percentage of LBW infants is 7.9%, which is 5% lower than the national rate
- The percentage of VLBW infants is 1.3% **Babies born early are at an**

increased risk for health problems.

disease.<sup>3</sup> Additionally, there are certain oral problems that affect pregnant women specifically. About half of women experience pregnancy gingivitis, beginning in the second or third month of pregnancy that increases in severity throughout the eighth month. This condition can be uncomfortable and cause swelling, bleeding, redness or tenderness in the gum tissue.<sup>5</sup> In some cases, gums swollen by pregnancy gingivitis can react strongly to irritants and form large growths, called "pregnancy tumors", which are not cancerous and are generally painless. If a tumor persists, it may require removal by a dentist.<sup>5</sup> It is very important for pregnant women to maintain their oral health.

# **Improving Oral Health Before and During Pregnancy**

- ✓ Drink fluoridated water
- Brush your teeth and gums twice a day with a fluoride toothpaste and floss each day
- ✓ Make an appointment with a dental provider
- ✓ Make good nutritional choices; limit sweet drinks and avoid refined sugar
- ✓ Include Vitamin C and Calcium in your daily diet
- ✓ Quit smoking
- ✓ Get plenty of rest
- ✓ Learn how to take care of the baby's gums and teeth now

#### **Infant/Toddler Oral Health Tips**

- Consult a pediatrician, family physician or dentist on the most appropriate water to use with reconstituted infant formula.
- Start oral care early; begin wiping the baby's gums with a cloth or gauze each day and start brushing as soon as the first tooth appears.
- Supervise the child's brushing.
- Try to schedule the child's first dental visit around his or her first birthday.

## What is the impact of premature birth in the U.S.?

Births are considered preterm when they occur before 37 weeks gestation. Preterm births can result in both low birth weight (LBW), less then 2,500 grams or 5.5 pounds, and very low birth weight (VLBW) babies, a weight of less than 1,500 grams or 3.3 pounds. Premature birth and low birthweight babies significantly contribute to the incidence of infant mortality, accounting for 70% of prenatal deaths in the U.S. Disorders related to short gestation and low birth weight were the second leading cause of infant death in 2004, affecting 4.6% of babies. Premature births have soared to become the number one obstetric problem in the United States<sup>3</sup>, and the percentage of LBW infants has increased by 36% since 1990 when it was 5.8%. Many premature babies come into the world with serious health problems, and those who survive may suffer life-long consequences. Moreover, LBW infants suffer from numerous health complications.

## What is Massachusetts doing?

- Massachusetts participates in the *Women, Infant and Children Nutrition Program* (WIC). WIC is a program that provides nutrition and health education, healthy food and other services free of charge to Massachusetts families who qualify. WIC's goal is to help keep pregnant and breastfeeding women, new moms, and kids under age 5 healthy.
  - To apply for WIC, call 1-800-WIC-1007.8
- The Department of Public Health Division of Primary Care and Health Access initiated the *Family Planning Program* which promotes and provides comprehensive family planning services, including clinic-based services and often community education and outreach. Family planning is an integral component of the efforts to reduce infant mortality and morbidity, and improve the health of women and men of all ages.<sup>9</sup>
- Growing Up Healthy is a website sponsored by the Division for Perinatal, Early Childhood, and Special Health Needs within the Department of Public Health. The website provides information in both English and Spanish about ways to raise a healthy child. This information can be accessed at <a href="www.mass.gov">www.mass.gov</a> by clicking <a href="For Consumers">For Consumers</a> > <a href="Community Health">Community Health</a> > <a href="Frequency and Newborn">Frequency and Newborn</a> > <a href="Growing Up Healthy">Growing Up Healthy</a>.

#### References

- 1. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion, Division of Oral Health. Links Between Oral and General Health. *U.S. Department of Health and Human Services. Office of the Surgeon General*. October 4, 2004. <a href="http://www.cdc.gov/OralHealth/publications/factsheets/sgr2000\_fs4.htm">http://www.cdc.gov/OralHealth/publications/factsheets/sgr2000\_fs4.htm</a>
- U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. Oral Health in America: A
  Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and
  Craniofacial Research, 2000.
- 3. American Academy of Periodontology. Baby Steps to Healthy Pregnancy and On-Time Delivery. *AAP Oral Health Tips*. March 10, 2008. <a href="http://perio.org/consumer/pregnancy.htm#2">http://perio.org/consumer/pregnancy.htm#2</a>
- 4. Goldenberg, Robert L., and Jennifer F. Culhane, Ph.D. Preterm Birth and Periodontal Disease. *New England Journal of Medicine* (2006): 1925-1927.
- 5. American Academy of Periodontology. Protecting Oral Health Throughout Your Life. Women and Gum Disease. *AAP Oral Health Tips*. March 10, 2008. March 10, 2008. <a href="https://perio.org/consumer/women.htm">https://perio.org/consumer/women.htm</a>
- 6. Massachusetts Department of Public Health. Massachusetts Births 2006. Bureau of Health Information, Statistics, Research, and Evaluation. Division of Research and Epidemiology. February 2008. http://www.mass.gov/Eeohhs2/docs/dph/research\_epi/birth\_report\_2006.pdf
- Mathews, T.J., M.S., and Marian F. MacDorman, Ph.D. Infant Mortality Statistics from the 2004 Period Linked Birth/Infant Death Data Set. Centers for Disease Control and Prevention, National Vital Statistics Report. 55(14) 2007. http://www.cdc.gov/NCHS/data/nvsr/nvsr55/nvsr55\_14.pdf
- 8. Massachusetts Department of Public Health. Office of Health and Human Services. *The Women, Infant and Children Nutrition Program (WIC)*. 2008 <a href="http://www.mass.gov/">http://www.mass.gov/</a> Departments & Divisions/Department of Public Health/Programs and Services T-Z
- 9. Massachusetts Department of Public Health. Office of Health and Human Services. *Family Planning Program*. 2008 <a href="http://www.mass.gov/">http://www.mass.gov/</a> Departments & Divisions/Department of Public Health/Programs and Services A-J.
- 10. Massachusetts Department of Public Health. Office of Health and Human Services. *Growing Up Healthy*. 2008. <a href="http://www.mass.gov/Departments/">http://www.mass.gov/Department of Public Health/Programs and Services A-J.</a>

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